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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,810	12/15/2005	Yoshiharu Kobayashi	2005_1750A	5608

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EXAMINER

BIBBINS, LATANYA

ART UNIT

PAPER NUMBER

2627

NOTIFICATION DATE

DELIVERY MODE

04/02/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/560,810

Applicant(s)

KOBAYASHI ET AL.

Examiner

LaTanya Bibbins

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-44 and 48-59 is/are pending in the application.
- 4a) Of the above claim(s) 34-44 and 48-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-33 and 57-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species A (Figures 1A-1C, 2 and 3), corresponding to claims 29-35 and 57-59 in the reply filed on January 7, 2010 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election **without** traverse (MPEP § 818.03(a)).

2. Although claims 34 and 35 are drawn to the elected Species A (Figures 1A-1C, 2 and 3), in the amendment filed on September 1, 2009 claims 34 and 35 were withdrawn from consideration.

3. Claims 36-44 and 48-56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 7, 2010.

Response to Arguments

4. Applicant's arguments with respect to claims 29-33 and 57-59 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 29, 30, and 57-59 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiroshi (JP 11-232674).

Regarding claim 29, Hiroshi discloses an optical disk apparatus for recording or reproducing information on or from an optical disk (Drawing 1) which has a transparent planar disk base member (Drawing 2B, elements 11b and 12b and the discussion in paragraph [0027]), a recording layer formed on the disk base member (Drawing 2B, element 11a and the discussion in paragraph [0027]), and a reflecting layer for reflecting a laser beam by way of the disk base member (Drawing 2B element 12a and the discussion in paragraph [0027]), the reflecting layer being disposed on an opposite side of the disk base member than the recording layer (Drawing 2 and the discussion in paragraph [0027]), and the optical disk being configured such that an interval between the recording layer and the reflecting layer is longer than a wavelength of the laser beam (Drawing 2 and the discussion in paragraphs [0025]-[0027]), said optical disk apparatus comprising: a light source which irradiates the laser beam for recording or reproducing the information on or from the optical disk (see the discussion in paragraph [0026]), wherein said light source irradiates the laser beam onto the recording layer of the optical disk by way of the disk base member to form a focusing spot on the recording layer (see Drawings 1 and 2 and the discussion in paragraph [0030]); a photo detector which receives from the reflecting layer a reflected beam of the laser beam irradiated from said light source (elements 31 and 41 of Drawings 3 and Drawing 6 and

the discussion in paragraphs [0033]-[0037]); and a tilt detecting unit which detects tilt of the optical disk by using an output from said photo detector (Drawing 6, element 62 and the discussion in paragraphs [0012]-[0014]).

Regarding claim 30, Hiroshi further discloses wherein the recording layer is formed closer to an incident surface of the optical disk where the laser beam is incident than the reflecting layer (see the arrangement of elements 11a and 12a in Drawings 1 and 2).

Regarding claim 57, Hiroshi further discloses wherein said light source irradiates the laser beam such that the laser beam is incident on the recording layer (see Drawings 1 and 2 and the discussion in paragraph [0030]).

Regarding claim 58, Hiroshi further discloses wherein said photo detector generates the output based on the reflected beam (elements 31 and 41 of Drawings 3 and Drawing 6 and the discussion in paragraphs [0033]-[0037]).

Regarding claim 59, Hiroshi further discloses wherein said optical disk apparatus is operable to detect tilt of the optical disk based on a length of an optical path of the laser beam (see the discussion in paragraphs [012]-[0014], [0037] and [0038]).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi (JP 11-232674) in view of Saimi et al. (US Patent Number 6,430,137 B1).

Regarding claim 31, Hiroshi discloses the optical disk apparatus according to claim 29 as noted in the 35 U.S.C. 102(b) rejection above but does not specifically disclose an aberration canceling means formed on an optical path for guiding the reflected beam to the photo detector.

Saimi however, discloses an aberration canceling means which is formed on an optical path for guiding the reflected beam to the photo detector to cancel a defocus aberration and a spherical aberration of the reflected beam (see Figure 1 element 104 and the discussion in column 9 line 11 – column 12 line 42 regarding the wavefront transformer used to cancel aberrations).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine incorporate the teachings of Saimi into that of Hiroshi. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to improve the properties of the focused light beam by correcting aberration in real-time and eventually achieve favorable optical recording properties and a favorable reproduction signal (as suggested by Saimi in column 4 lines 63-67).

Regarding claim 32, the combination of Hiroshi and Saimi disclose the optical disk apparatus according to claim 31. Saimi further discloses wherein the aberration

canceling means includes a wavefront controlling device which controls a wavefront of the reflected beam (see Figure 1 element 104 and the discussion in column 9 line 11 – column 12 line 42 regarding the wavefront transformer).

9. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi (JP 11-232674) in view of Saimi et al. (US Patent Number 6,430,137 B1), as applied to claim 31 above, and further in view of Mizuno et al. (US PGPub Number 2004/0114494 A1).

Regarding claim 33, the combination of Hiroshi and Saimi disclose the optical disk apparatus according to claim 31. Hiroshi and Saimi fail to specifically disclose, while Mizuno discloses wherein the aberration canceling means includes a condenser lens which focuses the reflected beam on the photo detector, and a lens moving means which moves the condenser lens (see the discussion in paragraphs [0152] and [0155]-[0157]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hiroshi and Saimi with Mizuno. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to improve the quality of reproduction signals as suggested by Mizuno in paragraph [0157].

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571)270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LaTanya Bibbins/
Examiner, Art Unit 2627

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627